

REMARKS

The present communication is responsive to the Official Action mailed on September 9, 2003. A one-month extension of the time to reply, up to and including January 9, 2004, is mailed concurrently herewith.

Claims 1-15 and 18-20 remain pending in the application. Of the pending claims, claims 1, 4 and 18 are independent claims. All the other pending claims depend from either claim 1 or claim 18.

Applicants have amended claim 4 to correct a minor informality by replacing the word "An" with -an--. Applicants respectfully submit this amendment does not affect the scope of claim 4.

Applicants have amended claim 18 to now recite "establishing a range between an upper signal level and a lower signal level of the detected analog signal." Antecedent bases for these amendments may be found, for example, at page 37, ln. 16 to page 39, ln. 5 of the written description.

In the Official Action, the Examiner rejected claims 1 and 7-9 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,485,171 to *Copper et al.* (hereinafter "*Copper*"). Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Copper* in view of U.S. Patent No. 6,208,271 to *Armstrong* (hereinafter "*Armstrong*"). Claims 2, 3, 5, 6, 10-15, 19 and 20 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over *Copper* as applied to claims 1 and 18 and further in view of *Armstrong*. Claim 18 was rejected under 35 U.S.C. § 102 as being anticipated by *Copper*.

In rejecting claim 1, the Examiner asserts that *Copper* teaches "a control (3) apparatus comprising a

controller (12) which can be pressed and operated (see abstract); a detecting device (transducer, 15) for outputting an analog signal corresponding to the pressing operation of the controller (12), an A/D converting unit for converting the detected analog signal into a digital signal (see col. 9, lns. 43-51)."

However, the Examiner admits that "Copper fails to specifically teach a level segmenting unit for segmenting the analog signal output by the detecting device into one of a plurality of levels, or a segmenting-range setting unit coupled to the level segmenting unit for calibrating a range associated with the plurality of levels into which the analog signal is segmented by the level segmenting unit." Nonetheless, the Examiner continues by asserting that Copper teaches "detection of applied pressure voltage levels, which range from zero to [a] maximum determined by circuit parameters, [that] reflect the direction and magnitude of force applied." The Examiner then reaches the extraordinary conclusion that "this function thereby acts as a segmenting-range setting unit."

The Examiner also asserts that Copper discloses that "the voltages are further divided into several bands, which correspond to ranges of applied forces" and that "this function thereby acts as a level segmenting unit (see col. 9, ln. 52-col. 10, ln. 14)." As such, the Examiner concludes that it would have been obvious to modify the device of Copper "to include a level segmenting unit, and a segmenting range setting unit coupled thereto in order to provide a set range of voltage levels which relate to applied pressure to a detecting device in order to provide the corresponding signals

to a processor for controlling a computer system or electronic device."

Applicants respectfully traverse the Examiner's rejection of claim 1. First, the Examiner incorrectly concludes that because *Copper* discloses "that the applied pressure has a predetermined range between zero and [a] maximum [that] this function thereby acts as a segmenting-range setting unit." Accordingly, the Examiner completely ignores a substantial portion of what is recited in claim 1. Specifically, claim 1 recites "a segmenting-range setting unit coupled to said level segmenting unit for calibrating a range associated with the plurality of levels into which the analog signal is segmented by said level segmenting unit." [Emphasis added.] The Examiner therefore completely ignores that the recited segmenting-range setting unit calibrates "a range associated with the plurality of levels." *Copper* clearly does not disclose this function. The fact that *Copper* may disclose that "the applied pressure has a predetermined range between zero and maximum" is of no import. [Emphasis added.] The fact that *Copper* discloses "a predetermined range between zero and [a] maximum," as the Examiner states, makes it abundantly clear that there is no "calibrating." There is certainly no need to calibrate a range if that range is predetermined.

Indeed, the portion of *Copper* upon which the Examiner relies to support her assertion that *Copper* discloses a segmenting-range setting unit makes it abundantly clear that there is no calibrating taught or suggested, to wit:

As the point of application moves, the transducer yields corresponding voltage changes. Voltage levels, which range from 0 to a maximum determined by circuit

parameters, reflect the direction and magnitude of force applied to the disc. Voltages between - and a voltage somewhat below one-half of maximum represent movement in the negative direction of the corresponding axis. Voltages between a voltage somewhat greater than one-half of maximum and approximately the maximum represent movement in the positive direction of the corresponding axis.
[Emphasis Added.]

(*Copper*, col. 9, ln. 59-col. 10, ln. 2.) *Copper* contains absolutely no disclosure that the range determined by the circuit parameters changes in response to the pressure applied to the transducer. Thus, *Copper* discloses that the voltage range corresponding to an applied pressure is "predetermined," to use the Examiner's word, by circuit parameters and the voltage range remains fixed. In contrast, claim 1 recites "a segmenting-range setting unit . . . for calibrating a range associated with the plurality of levels into which the analog signal is segmented by said level segmenting unit." The Examiner simply cannot ignore the claim language in rejecting a claim. "[T]he prior art reference (or references when combined) must teach or suggest all the claim limitations." (M.P.E.P. § 2143, pg. 2100-122; Emphasis added.)

Second, the Examiner's assertion that *Copper's* disclosure relating to dividing the range from zero to a maximum into several bands somehow functions as a segmenting unit is of no import because *Copper* does not teach or suggest that these bands are at all calibrated. In fact, the voltage bands correspond to voltage levels within the already predetermined range. (*Copper*, col. 10, lns. 7-10.)

Simply put, the Examiner's rejection is unreasonable in that the Examiner admits that *Copper* does not disclose

either a segmenting-range setting unit or a segmenting unit but somehow concludes that the function of having voltage levels that corresponds to an applied pressure, which is not even suggestive of "calibrating a range associated with the plurality of levels" as is recited in claim 1, "acts as a segmenting-range setting unit." As such, applicants respectfully submit that the Examiner's rejection of claim 1 is baseless because *Copper* simply does not teach or suggest all the claim limitations.

In rejecting claim 4, the Examiner likewise asserts that because *Copper* discloses "that the applied pressure has a predetermined range between 0 and [a] maximum, this function thereby acts as a segmenting-range setting unit." Applicants respectfully submit that the Examiner's rejection of claim 4 fails for the reasons discussed above. Specifically, *Copper* clearly does not teach or suggest "a segmenting-range setting unit for calibrating the range over which said level segmenting unit segments the analog output signal into one of the plurality of levels" as is recited in claim 4. Moreover, *Armstrong* fails to overcome these deficiencies of *Copper*. As such, the combination of *Copper* and *Armstrong* does not obviate claim 4 simply because the Examiner has again failed to establish that the prior art references teach or suggest all the claimed limitations.

In rejecting claim 18, the Examiner asserts that *Copper* teaches "detecting an analog signal corresponding to a load exerted on the pressure sensitive device (see col. 5, lns. 50-61), establishing a range based on upper and lower signal levels of the detected analog signal (see col. 9, lns. 61-63), and segmenting the detected analog signal into a

plurality of signal levels within the established range . . . (see col. 9, ln. 64-col. 10, ln. 2)."

Applicants respectfully submit that based on the amendment to claim 18 the Examiner's rejection of claim 18 is now moot. Specifically, *Copper* does not teach "establishing a range between an upper signal level and a lower signal of the detected analog signal." As the Examiner points out, *Copper* teaches that the "[v]oltage levels which range from 0 to a maximum [are] determined by circuit parameters." (*Copper*, col. 9, lns. 61-63.) In addition, in rejecting claims 1 and 4, the Examiner admits that this is "a predetermined range." Applicants respectfully submit that "a predetermined range" is not identical to or even remotely suggestive of "establishing a range between an upper signal level and a lower signal of the detected analog signal" because *Copper* fixes the lower signal level to 0 volts. If *Copper* is clear with respect to any teaching, it is that the voltage range is predetermined or fixed based on "circuit parameters." This is certainly not suggestive of establishing a range that changes in response to a load exerted on the pressure sensitive device as recited in claim 18. The fact is that in *Copper* the range is "predetermined," again to use the Examiner's term, by the circuit parameters. As such, applicants respectfully submit that claim 18 is not anticipated by *Copper* as anticipation requires that the prior art reference identically disclose each and every limitation recited in the claim. (See M.P.E.P. § 2131.01, pgs. 2100-69.)

In responding to applicants' arguments in the amendment of August 20, 2003, the Examiner asserts that "calibrating a range [is] defined in the specification as setting the limits to which the level segmenting unit

segments . . . the detected signal into a plurality of voltage levels." The Examiner then concludes that "[t]his is taught by *Copper* et al. where it is taught that the voltage levels range from [0] to [a] maximum as determined by circuit parameters." As stated above, *Copper* clearly does not teaching calibrating a range. The fact is that the portion of *Copper* that the Examiner relies on teaches that the voltage levels are predetermined, to use the Examiner's word again, and the bands of voltage to which the Examiner refers are fixed because the maximum range of voltage remains fixed by the circuit parameters. Further in this regard, it is completely unreasonable for the Examiner to assert that *Copper* teaches a segmenting-range setting unit, much less teaches that a segmenting-range setting unit is coupled to a level segmenting unit when the Examiner admits that neither a segmenting-range setting unit nor a level segmenting unit is disclosed in *Copper*.

In rejecting the claims and making her arguments, the Examiner completely ignores the plain language of the claims and various portions of the claims and provides no support in any of the references that teaches or suggests "calibrating" as is recited with respect to the segmenting-range setting unit in claims 1 and 4 or "establishing a range between an upper signal level and a lower signal of the detected analog signal" as is recited in claim 18. It is only applicants' claims and written description that teach the claimed combination, not *Copper* or *Armstrong* or any combination thereof.

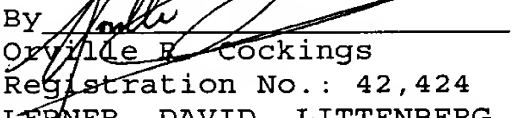
Because claims 2, 3, 5-15 and 19-20 depend from either claim 1 or claim 18, applicants respectfully submit

that these claims are allowable for at least the reasons stated above.

In view of the foregoing, applicants earnestly request favorable reconsideration and allowance of claims 1 through 15 and 18 through 20. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicants' attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: December 18, 2003 Respectfully submitted,

By 
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